REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on October 4, 2002 and the references cited therewith. Claims 5, 6, 11, 19, and 21 are amended.

Rejections Under 35 U.S.C. § 112

Claim 10 was rejected under 35 U.S.C. § 112, first paragraph. Applicant respectfully traverses the rejection of claim 10 under 35 U.S.C. § 112, first paragraph. Claim 10 depends indirectly from claim 5 and provides a structural limitation of claim 5 that is supported in paragraph [0035] of the specification. Therefore, claim 10 meets the requirements of 35 U.S.C. § 112, first paragraph and should be allowed.

Rejections Under 35 U.S.C. § 102(b)

Claims 1, 2, 11-15, and 19-21 were rejected under 35 U.S.C. § 102 (b) as being anticipated by Schoenecke (U.S. 2,207,898). Applicant respectfully traverses the Examiner's rejection of claims 1, 2, 11-15, and 19-21 under 35 U.S.C. § 102 (b).

Claim 1 is directed to a pressure transducer test apparatus that includes a fitting having an input to receive a pressure input and an output to receive a pressure transducer. A valve is attached to the fitting near the input, such that the fitting has a variable pressure chamber with first and second selectable internal volumes between the valve and the output.

Applicant carefully reviewed Schoenecke and found no indications of a variable pressure chamber with first and second selectable internal volumes, as in claim 1. Therefore, Schoenecke does not include what is covered in claim 1, and claim 1 should be allowed.

Claim 2 depends directly from claim 1 and provides a piston in the fitting, such that movement of the piston selects the first and second volumes. Applicant carefully reviewed Schoenecke and found no indications of a piston that moves for selecting first and second volumes. Therefore, claim 2 should be allowed.

Claim 11, as amended, is directed to a method of in situ testing a pressure transducer. The method includes measuring a first internal pressure in a fitting at a first internal volume of the fitting using the pressure transducer. The method includes changing the internal volume of the fitting to a second internal volume to change the internal pressure to a second internal pressure and measuring the second internal pressure in the fitting using the pressure transducer. Comparing the measured first and second internal pressures to historical pressure readings is also included in the method.

Applicant carefully reviewed Schoenecke and found no indications of changing the internal volume of the fitting to a second internal volume to change the internal pressure to a second internal pressure and measuring the second internal pressure, as in claim 11. Therefore, claim 11 should be allowed.

Claims 12 and 13 depend directly from claim 11 and thus include patentable limitations of claim 11. Therefore, claims 12 and 13 should be allowed.

Claim 14 depends directly from claim 11 and provides for calculating a sensitivity, repeatability and hysteresis of the transducer using the measured internal pressures. Applicant found no indications in Schoenecke that Schoenecke calculates sensitivity, repeatability and hysteresis of a transducer using measured internal pressures, as in clam 14. Therefore, claim 14 should be allowed.

Claim 15 depends indirectly from claim 11 and provides for calculating linearity of the transducer using the measured internal pressures and a measured temperature. Applicant found no indications in Schoenecke that Schoenecke calculates linearity of the transducer using measured internal pressures and a measured temperature, as in claim 15. Therefore, claim 15 should be allowed.

Claim 19, as amended, is directed to a method of in situ testing a pressure transducer. The method includes measuring a series of first internal pressures in a fitting at a first volume of the fitting using the pressure transducer and measuring a series of second internal pressures in the fitting at a second volume of the fitting using the pressure transducer. The method includes analyzing and comparing the measured series of first and second internal pressures to historical data.

Applicant found no indications in Schoenecke that Schoenecke includes measuring a series of first internal pressures in a fitting at a first volume of the fitting using the pressure transducer and measuring a series of second internal pressures in the fitting at a second volume of the fitting using the pressure transducer, as in claim 19. Therefore, claim 19 should be allowed.

Claim 20 depends directly from claim 19 and provides that analyzing includes determining sensitivity, linearity, hysteresis, or repeatability of the transducer. Applicant found no indications that Schoenecke determines sensitivity, linearity, hysteresis, or repeatability of a transducer, as in claim 20. Therefore, claim 20 should be allowed.

Claim 21 depends directly from claim 19 and thus includes patentable limitations of claim 19. Therefore, claim 21 should be allowed.

Rejections Under 35 U.S.C. § 103(a)

Claims 3-7 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Schoenecke (U.S. 2,207,898) in view of Geiger (U.S. 4,730,789). Applicant respectfully traverses the Examiner's rejection of claims 3-7 under 35 U.S.C. § 103 (a).

Claims 3 and 4 depend directly or indirectly from claim 1 and thus include patentable limitations of claim 1. Therefore, claims 3 and 4 should be allowed.

Claim 5, as amended, is directed to a pressure transducer test apparatus that includes a fitting having an input to receive a pressure input and an output coupleable to a pressure transducer. A valve is attached to the fitting near the input. The fitting further has first and second selectable internal volumes between the valve and the output. A piston is provided in the fitting. The piston is remotely movable between first and second positions for selecting the first internal volume at the first position and the second internal volume at the second position.

Applicant carefully reviewed Schoenecke and found no indications of a fitting having first and second selectable internal volumes between a valve and an output. Moreover, Schoenecke does not provide any motivation for including a fitting having first and second selectable internal volumes between a valve and an output. Applicant carefully reviewed Geiger found no indications of a fitting having first and second

selectable internal volumes between a valve and an output. Moreover, Geiger does not provide any motivation for including a fitting having first and second selectable internal volumes between a valve and an output. Therefore, Schoenecke and Geiger alone or in combination do not include what is covered in claim 5 and thus claim 5 should be allowed.

Claims 6 and 7 depend directly from claim 5 and thus include patentable limitations of claim 5. Therefore, claims 6 and 7 should be allowed.

Claims 8-10 were rejected under 35 U.S.C. § 103 (a) as being unpatentable over Schoenecke (U.S. 2,207,898) in view of Geiger (U.S. 4,730,789) and further in view of Kluth (U.S. 5,582,064). Applicant respectfully traverses the Examiner's rejection of claims 8-10 under 35 U.S.C. § 103 (a).

Claims 8-10 depend directly or indirectly from claim 5 and thus include patentable limitations of claim 5. Therefore, claims 8-10 should be allowed.

Conclusion

Claims 5, 6, 11, 19, and 21 are amended. Applicant respectfully requests reconsideration of the application and allowance of claims 1-15 and 19-21.

The Examiner is invited to contact Applicant's Representatives at direct dial (321) 867-7214 if there are any questions regarding this Response or if prosecution of this application may be assisted thereby.

Respectfully submitted,

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ADDENDUM TO RESPONSE

Version with Markings to Show Changes Made

IN THE CLAIMS

Rewritten claims

5. (Once amended) A pressure transducer test apparatus comprising:

a fitting having an input to receive a pressure input and an output coupleable to a pressure transducer;

a valve attached to the fitting near the input, the fitting further having first and second selectable internal volumes between the valve and the output; and

a piston provided in the fitting, wherein the piston [can be] is remotely [moved] movable between first and second positions for selecting the first internal volume at the first position and the second internal volume at the second position[, such that the fitting has a first internal volume between the valve and the output when the piston is in the first position, and the fitting has a second internal volume between the valve and the output when the piston is in the second position].

6. (Once amended) The pressure transducer test apparatus of claim 5 wherein the piston is [moved] movable in response to an electro magnet.

11. (Once amended) A method of in situ testing a pressure transducer comprising:

measuring a first internal pressure in a fitting at a first internal volume of the fitting using the pressure transducer;

changing [an] the internal volume of the fitting to a second internal volume to change the internal pressure to a second internal pressure;

measuring [a] the second internal pressure in the fitting using the pressure transducer; and

comparing the measured first and second internal pressures to historical pressure readings.

19. (Once amended) A method of in situ testing a pressure transducer comprising:

measuring a series of first internal pressures in a fitting at a first volume of the fitting using the pressure transducer[, wherein the fitting has a pressure chamber in a first volume state];

measuring a series of second internal pressures in [a] the fitting at a second volume of the fitting using the pressure transducer[, wherein the pressure chamber is in a second volume state]; and

analyzing and comparing the measured series of first and second internal pressures to historical data.

21. (Once amended) The method of claim 19 wherein the first and second [volume states] volumes of the [pressure chamber] fitting are determined by a position of an internal piston of the fitting.